ABSTRACT

A control apparatus for an internal combustion engine that is capable of switching between compression ignition combustion and spark ignition combustion is provided. The control apparatus is configured to perform fuel cut. The spark ignition combustion is performed over a time period after the fuel cut. The compression ignition combustion is permitted when the time period elapses. Fuel cut decreases the temperature within the combustion chamber. According to the invention, if fuel cut is performed, the temperature within the combustion chamber is raised by the spark ignition combustion. Since the compression ignition combustion is permitted after the temperature within the combustion chamber rises, engine misfire and an increase of NOx emission are prevented. The time period is preferably determined based on the temperature within the combustion chamber immediately before the fuel cut is performed.

10

15